

# REVIEW FOR SALES UNIT TEST CALCULATOR PORTION

$$100 - 25 = 75\%$$

1. An item is \$14.30 after a tax of 6% and a 25% off sale. Find the original cost of the item.

$$\frac{14.30}{1.06} = 13.49$$

$$\frac{13.49}{.75} = \$17.99$$

$$\begin{array}{l} \times .75 \quad \downarrow \times \quad \uparrow \div .75 \\ \times 1.06 \quad \downarrow \times \quad \uparrow \div 1.06 \\ 14.30 \end{array}$$

2. An item is \$81.09 after a tax of 6% and a 10% off sale. Find the original cost of the item.

$$\frac{81.09}{1.06} = 76.5 \quad \frac{76.5}{.9} = \$85$$

3. An advertisement says a TV is \$50 off and the new price is \$299.99.

A. What is the original price of the item?

$$349.99$$

B. What percent off was the sale?

$$\frac{\text{savings}}{\text{original}} = \% \text{ savings} \quad \frac{50}{349.99} = .14286 \Rightarrow 14\% \text{ off}$$

4. You go out to eat with 3 friends and the 4 of you want to split the bill evenly. If the total is \$48.25 how much should each person pay?

$$48.25 / 4 = 12.06$$

5. Find the after tax price of an item that is \$18.50 and the tax is 6%.

$$18.50 (1.06) = 19.61$$

6. Find the after tax price of an item that is \$250 and the tax is 11%.

$$250 (1.11) = 277.50$$

7. An item that was \$80 is now \$55. Find the percent savings.

$$\frac{80 - 55}{80} = \frac{25}{80} = .3125 \approx 31\%$$

8. What percent do I need to save if I want to buy a \$40 pair of pants for \$28?

$$\frac{40 - 28}{40} = \frac{12}{40} = .3 \Rightarrow 30\%$$

9. I have a \$10 off coupon and a 30% off coupon, but I can't use both.

A. If my item is \$80, which coupon should I use? Why?

$$\begin{array}{c|c} \$10 \text{ off} & 30\% \text{ off} \\ \hline \$80 \downarrow & \$80 \downarrow \\ \$70 & \$56 \end{array}$$

B. For what item cost would it not matter what coupon I used?

$$x - 10 = .7x \quad \text{or} \quad \frac{30\%}{.3} = \frac{10}{.3}$$

\$33.33

10. Find 38% of \$500.

$$.38(500) = 190$$

11. Find 112.5% of \$50.

$$1.125(50) = 56.25$$

12. If you want to make money in resale and you buy an item for \$20 and then sell it for \$28, what percent is your markup?

~~Markup~~  
original  $\frac{8}{20} = 40\%$

13. At your hardware store, you buy hammers for \$40.00 a dozen and sell them for \$4.00 each. What is the percent markup for each hammer?

per hammer  $\frac{40}{12} = 3.33 \text{ each}$

$$\frac{4 - 3.33}{3.33} = .2 \Rightarrow 20\%$$

per dozen  $4 \times 12 = \$48 \text{ for the dozen}$

$$\frac{48 - 40}{40} = \frac{8}{40} = .2 \Rightarrow 20\%$$

14. Phone plan A charges \$0.19 each minute. Phone plan B charges a \$15 monthly fee and then \$0.08 each minute.

A. If you plan to use 500 minutes this month, which plan should you pick? Why?

$$A: .19(500) = \$95$$

$$B: 15 + .08(500) = \$55 \quad \Rightarrow \text{Plan B is } \$40 \text{ cheaper}$$

B. For what number of minutes are the plans equal in price?

$$\begin{array}{r} .19x = 15 + .08x \\ -.08x \quad \quad -.08x \\ \hline .11x = 15 \\ \frac{.11}{.11} = \frac{15}{.11} \end{array}$$

$$x = 136.36 \Rightarrow \approx 136 \text{ minutes}$$

# REVIEW FOR SALES UNIT TEST NON-CALCULATOR PORTION

1. How much change do I get if I pay for a \$12.23 bill with \$20?

\$ 7.77

2. How much change do I get if I pay for a \$4.78 item with \$10?

\$ 5.22

3. How much change do I give the cashier if my purchase is \$5.17 and I want a \$5 bill back?

\$ 10.17

4. My bill was \$7.40 and I gave the cashier a \$20. His register said to give \$12.60 in change, but then I found 40 cents and gave it to the cashier. He doesn't know how much to change to give me now. How much do I tell the cashier to give me?

\$ 13

5. Describe how to find 10% of any number. Consider using an example to make your explanation more clear.

Move the decimal point one unit to the left.

For example 10% of 6.5 is 6.5

6. I go out to eat and my table's bill is \$62.35. How much do I tip if I want each of the following percents?

A. 10% tip

6.74 → \$7

B. 20% tip

13.48 → 13.50

C. 15% tip

10.11

$$\begin{array}{r} 6.74 \\ 6.74 \\ \hline .48 \end{array}$$

$$\begin{array}{r} 10\% \\ \frac{1}{2}(10\%) = 5\% \\ 6.74 \\ 3.37 \\ \hline 10.11 \end{array}$$

7. I eat out and the meal total is \$18.25. The waiter did an excellent job and I want to tip 20%. What will be my total cost of the meal and tip?

$$\begin{array}{r} 1.825 \\ 1.825 \\ \hline 3.650 \end{array}$$

$$\begin{array}{r} 18.25 \\ 3.65 \\ \hline 21.90 \end{array}$$

\$21.90

8. A \$40 item is on sale. Find the new price (before tax) if the sale is each of the following percents:

A. 20% off  
-8

32

B. 50% off

20

C. 60% off = pay 40%  
40 - 24  
16

D. 75% off = pay 25%  $\frac{1}{4}$   
10

9. The dress I want is \$65, but there is a 30% off sale. How much is the dress now (before tax)?

$$3(6.5) = 19.50$$

\$45.50

$$\begin{array}{r} 65.00 \\ -19.50 \\ \hline 45.50 \end{array}$$

10. Describe how to turn a percent into a decimal. Consider using an example to make your explanation more clear.

Move the decimal two spaces to the left. For example, 5% as a decimal is 0.05 and 136% is 1.36

11. What would I need to multiply my item cost by if I wanted to apply a sales tax of each of the following percents?

A. 6%

1.06

B. 8.5%

1.085

C. 14%

1.14